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09/739,081	12/15/2000	Anthony G. Tornetta	2997.1010-004	3746

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EXAMINER

CANGIALOSI, SALVATORE A

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 04/26/2004

10

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/739,081

Applicant(s)

TORNETTA ET AL.

Examiner

Salvatore Cangialosi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

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### ***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321 may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-14 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-13 of prior U.S. Patent No. 6,188,702. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are included within the

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scope of the claims of the prior patent.

Regarding claim 1 which corresponds element for element to claim 1 of the patent, the claim is a verbatim copy of the patent claim with the deletion of the wherein clause of the patent. Regarding claim 2 which corresponds to claim 2 of the patent, the claim is a verbatim copy of the patent claim. Regarding claim 3 which corresponds to claim 3 of the patent, the claim is a verbatim copy of the patent claim. Claim 4 is an obvious equivalent to elements of patent claim 1 since the signal is equivalent to the signal of the wherein clause of the patent. Regarding claim 5 which corresponds element for element to claim 4 of the patent, the parity generator is an obvious over the parity generator of the patent. Claim 6 is obvious equivalent to patent limitations of claim 5 with the exception of the wherein clause of the patent. Regarding claim 7 which corresponds to claim 6 of the patent, the claim is a verbatim copy of the patent claim. Regarding claim 8 which corresponds to claim 7 of the patent, the claim is a verbatim copy of the patent claim. Claim 9 is obvious equivalent to patent limitations of claim 5 of the signal of the wherein clause of the patent claim. Claim 10 is obvious equivalent to patent limitations of claim 8 with the exception of the signal in the tagging step. Regarding claim 11 which corresponds to claim 9 of the patent, the claim is a verbatim copy of the patent claim. Regarding claim 12 which corresponds to claim 10 of the patent, the claim is a verbatim

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copy of the patent claim. Claim 13 is an obvious equivalent to elements of patent claim 8 since the signal is equivalent to the signal of the signal in the tagging step of the patent. Claim 14 is an obvious over elements of patent claim 8 since claims steps would be necessary and inherent steps to the operation of the method claims of the patent. It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for the Tornetta et al et al patent because it is included within the claimed scope of the invention.

3. The following is a quotation of 35 U.S.C. . 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

4. Claims 1-14 are rejected under 35 U.S.C. 103 as being unpatentable over Yato et al or Mori at al in view of Obana et al (587 newly cited).

Regarding claim 1, Yato et al (See Figs. 2, 5, and

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8) or Mori et al (See Figs. 2, 5a-6) discloses an apparatus for converting a plurality of parallel data streams by employing pairs of multiplexer which are then input to multiplexer or serial converted to output clocked serial data substantially as claimed. The differences between the above and the claimed invention is the explicit recitation of a specific synchronizing signal. It is noted that the claimed signal are the functional equivalent of the clock signals of the prior art. Obana et al (See Col. 7, lines 20-40) show synchronizing signals in a stacked multiplexer arrangement for producing serial data. It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Yato et al or Mori et al because the substitution of equivalents, i.e. timing signals are old and well known and necessary for the functioning of any multiplexer. Regarding the optical limitations of claim 2, both Obana et al (Col. 1, lines 15-45) and Mori et al (Col. 3, lines 50-55) show optical fiber transmission. Regarding claim 3, these limitations are obvious over the nine bit signal of Mori et al (Col. 7, lines 20-45) and the 16 bit frame of Obana et al. The differences between the above and the claimed invention is the explicit bit sizing. It is noted that the claimed bit sized have become standard in the digital arts. It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Yato et al or Mori et al because the disclosed fiber systems such as sonnet are designed to

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accommodate differing bit sizes from disparate clients.

Regarding claim 4, Yato et al (col. 3, lines 1-5) or Mori et al (claim 11) or Obana et al (Fig. 10) shows the generation of a multiple phase clock signal. The differences between the above and the claimed invention is specific tagging of frames. It is noted that the purpose of these multiple phase clock signals is the ability to de-multiplex the combined signal at the receiver. It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Yato et al or Mori et al because the inherent tagging properties of the clocking signal. Regarding the parity limitations of claim 5, Mori et al (Col. 7, lines 20-45) show the use of parity bits. Regarding claim 6, Yato et al (See Figs. 2, 5, and 8) or Mori et al (See Figs. 2, 5a-6) discloses an apparatus for converting a plurality of parallel data streams by employing pairs of multiplexer which are then input to multiplexer or serial converted to output clocked serial data as well as the reverse substantially as claimed. The differences between the above and the claimed invention is the explicit recitation of a specific synchronizing tagging signal. It is noted that the claimed tagging signal are the functional equivalent of the clock signals of the prior art. Obana et al (See Col. 7, lines 20-40) show synchronizing signals in a stacked multiplexer arrangement for producing serial data. It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Yato et al or Mori

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at al because the substitution of equivalents, i.e. timing signals are old and well known and necessary for the functioning of any multiplexer. Regarding the optical limitations of claim 7, both Obana et al( Col. 1, lines 15-45) and Mori et al(Col. 3, lines 50-55) show optical fiber transmission. Regarding claim 8, these limitations are obvious over the nine bit signal of Mori et al(Col. 7, lines 20-45) and the 16 bit frame of Obana et al. The differences between the above and the claimed invention is the explicit bit sizing. It is noted that the claimed bit sized have become standard in the digital arts. It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Yato et al or Mori at al because the disclosed fiber systems such as sonnet are designed to accommodate differing bit sizes from disparate clients.

Regarding claim 9, Yato et al(col. 3, lines 1-5) or Mori at al(claim 11) or Obana et al(Fig. 10) shows the generation of a multiple phase clock signal. The differences between the above and the claimed invention is specific tagging of frames. It is noted that the purpose of these multiple phase clock signals is the ability to de-multiplex the combined signal at the receiver. It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Yato et al or Mori at al because the inherent tagging properties of the clocking signal. Regarding claim 10, Yato et al(See Figs. 2, 5, and 8) or Mori at al (See Figs. 2, 5a-6) discloses a method for converting



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a plurality of parallel data streams by employing pairs of multiplexer which are then input to multiplexer or serial converted to output clocked serial data substantially as claimed. The differences between the above and the claimed invention is the explicit recitation of a specific synchronizing signal. It is noted that the claimed signal are the functional equivalent of the clock signals of the prior art. Obana et al (See Col. 7, lines 20-40) show synchronizing signals in a stacked multiplexer arrangement for producing serial data. It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Yato et al or Mori at al because the substitution of equivalents, i.e. timing signals are old and well known and necessary for the functioning of any multiplexer. Regarding claim 11, Yato et al (See Figs. 2, 5, and 8) or Mori at al (See Figs. 2, 5a-6) discloses a method for converting a plurality of parallel data streams by employing pairs of multiplexer which are then input to multiplexer or serial converted to output clocked serial data as well as the reverse substantially as claimed. The differences between the above and the claimed invention is the explicit recitation of a specific synchronizing tagging signal. It is noted that the claimed tagging signal are the functional equivalent of the clock signals of the prior art. Obana et al (See Col. 7, lines 20-40) show synchronizing signals in a stacked multiplexer arrangement for producing serial data. It would have been obvious to the person

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having ordinary skill in this art to provide a similar arrangement for Yato et al or Mori at al because the substitution of equivalents, i.e. timing signals are old and well known and necessary for the functioning of any multiplexer. Regarding the optical limitations of claim 12, both Obana et al( Col. 1, lines 15-45) and Mori et al(Col. 3, lines 50-55) show optical fiber transmission. Regarding claim 13, Yato et al(col. 3, lines 1-5) or Mori at al(claim 11) or Obana et al(Fig. 10) shows the generation of a multiple phase clock signal. The differences between the above and the claimed invention is specific tagging of frames. It is noted that the purpose of these multiple phase clock signals is the ability to de-multiplex the combined signal at the receiver. It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Yato et al or Mori at al because the inherent tagging properties of the clocking signal. Regarding the protocol limitation of claim 14, these are obvious over the prior art because the disclosed fiber systems such as sonnet are designed to accommodate differing bit sizes from disparate clients

5. Claims 15-30 are rejected under 35 U.S.C. 103 as being unpatentable over Mori at al in view of Obana et al (587 newly cited) and Schmidt.

Regarding claim 15, Mori at al (See Figs. 2, 5a-6) discloses an apparatus for converting a plurality of parallel data streams

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by employing pairs of multiplexer which are then input to multiplexer or serial converted to output clocked serial data on optical fiber transmission (see Mori et al Col. 3, lines 50-55) substantially as claimed. The differences between the above and the claimed invention is the explicit recitation of a specific switching and a channel director having ESCON fibers. It is noted that the claimed channel director is the functional equivalent of the switches of the prior art. Obana et al (See Col. 7, lines 20-40) show a stacked multiplexer switching arrangement for producing serial data. Schmidt (See Fig. 1 and Col. 4, lines 20-40) show a fault tolerant channel director having many ESCON fibers into a switch matrix. It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Mori et al because the substitution of equivalents, i.e. the switch matrixes are old and well known and necessary for the functioning of this multiplexer and the same function as the equivalent of a channel director. Regarding the multiplexer limitations of claim 16, both Obana et al (Col. 1, lines 15-45) and Mori et al (Col. 3, lines 50-55) show multiplexer pair transmission. Regarding claim 17, Mori et al (claim 11) or Obana et al (Fig. 10) shows the generation of a multiple phase clock signal. The differences between the above and the claimed invention is specific tagging of data from a port. It is noted that the purpose of these multiple phase clock signals is the ability to de-multiplex the combined signal at the

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receiver. It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Yato et al or Mori et al because the inherent tagging properties of the clocking signal. Regarding the optical limitations of claim 18, both Obana et al (Col. 1, lines 15-45) and Mori et al (Col. 3, lines 50-55) show optical fiber transmission.

Regarding claim 19, Mori et al (See Figs. 2, 5a-6) discloses an apparatus for converting a plurality of parallel data streams by employing pairs of multiplexer which are then input to multiplexer or serial converted to output clocked serial data on optical fiber transmission (see Mori et al Col. 3, lines 50-55) and its reception substantially as claimed. The differences between the above and the claimed invention is the explicit recitation of a specific switching and a channel director having ESCON fibers. It is noted that the claimed channel director is the functional equivalent of the switches of the prior art. Obana et al (See Col. 7, lines 20-40) show a stacked multiplexer switching arrangement for producing serial data. Schmidt (See Fig. 1 and Col. 4, lines 20-40) show a fault tolerant channel director having many ESCON fibers into a switch matrix. It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Mori et al because the substitution of equivalents, i.e. the switch matrixes are old and well known and necessary for the functioning of this multiplexer and the same function as the equivalent of a channel director.

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Regarding claim 20, Mori et al(claim 11) or Obana et al(Fig. 10) shows the generation of a multiple phase clock signal. The differences between the above and the claimed invention is specific tagging of data from a port. It is noted that the purpose of these multiple phase clock signals is the ability to de-multiplex the combined signal at the receiver. It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Yato et al or Mori et al because the inherent tagging properties of the clocking signal. Regarding the optical limitations of claim 21, both Obana et al(Col. 1, lines 15-45) and Mori et al(Col. 3, lines 50-55) show optical fiber transmission. Regarding claim 22, Mori et al (See Figs. 2, 5a-6) discloses an apparatus for converting a plurality of parallel data streams by employing pairs of multiplexer which are then input to multiplexer or serial converted to output clocked serial data on optical fiber transmission (see Mori et al Col. 3, lines 50-55) substantially as claimed. The differences between the above and the claimed invention is the explicit recitation of a specific switching and a channel director having ESCON fibers. It is noted that the claimed channel director is the functional equivalent of the switches of the prior art. Obana et al (See Col. 7, lines 20-40) show a stacked multiplexer switching arrangement for producing serial data. Schmidt(See Fig. 1 and Col. 4, lines 20-40) show a fault tolerant channel director having many ESCON fibers into a switch matrix. It would have been

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obvious to the person having ordinary skill in this art to provide a similar arrangement for Mori et al because the substitution of equivalents, i.e. the switch matrixes are old and well known and necessary for the functioning of this multiplexer and the same function as the equivalent of a channel director. Regarding the multiplexer limitations of claim 23, both Obana et al (Col. 1, lines 15-45) and Mori et al (Col. 3, lines 50-55) show multiplexer pair transmission. Regarding claim 24, Mori et al (claim 11) or Obana et al (Fig. 10) shows the generation of a multiple phase clock signal. The differences between the above and the claimed invention is specific tagging of data from a port. It is noted that the purpose of these multiple phase clock signals is the ability to de-multiplex the combined signal at the receiver. It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Yato et al or Mori et al because the inherent tagging properties of the clocking signal. Regarding the optical limitations of claim 25, both Obana et al (Col. 1, lines 15-45) and Mori et al (Col. 3, lines 50-55) show optical fiber transmission. Regarding claim 26, Mori et al (See Figs. 2, 5a-6) discloses an apparatus for converting a plurality of parallel data streams by employing pairs of multiplexer which are then input to multiplexer or serial converted to output clocked serial data on optical fiber transmission (see Mori et al Col. 3, lines 50-55) and its reception substantially as claimed. The differences

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between the above and the claimed invention is the explicit recitation of a specific switching and a channel director having ESCON fibers. It is noted that the claimed channel director is the functional equivalent of the switches of the prior art. Obana et al (See Col. 7, lines 20-40) show a stacked multiplexer switching arrangement for producing serial data. Schmidt (See Fig. 1 and Col. 4, lines 20-40) show a fault tolerant channel director having many ESCON fibers into a switch matrix. It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Mori et al because the substitution of equivalents, i.e. the switch matrixes are old and well known and necessary for the functioning of this multiplexer and the same function as the equivalent of a channel director. Regarding claim 27, Mori et al (claim 11) or Obana et al (Fig. 10) shows the generation of a multiple phase clock signal. The differences between the above and the claimed invention is specific tagging of data from a port. It is noted that the purpose of these multiple phase clock signals is the ability to de-multiplex the combined signal at the receiver. It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Yato et al or Mori et al because the inherent tagging properties of the clocking signal. Regarding the optical limitations of claim 28, both Obana et al (Col. 1, lines 15-45) and Mori et al (Col. 3, lines 50-55) show optical fiber transmission. Regarding claim 29, Mori et al (See

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Figs. 2, 5a-6) discloses an apparatus for converting a plurality of parallel data streams by employing pairs of multiplexer which are then input to multiplexer or serial converted to output clocked serial data on optical fiber transmission (see Mori et al Col. 3, lines 50-55) substantially as claimed. The differences between the above and the claimed invention is the explicit recitation of a specific switching and a channel director having ESCON fibers. It is noted that the claimed channel director is the functional equivalent of the switches of the prior art. Obana et al (See Col. 7, lines 20-40) show a stacked multiplexer switching arrangement for producing serial data. Schmidt (See Fig. 1 and Col. 4, lines 20-40) show a fault tolerant channel director having many ESCON fibers into a switch matrix. It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Mori et al because the substitution of equivalents, i.e. the switch matrixes are old and well known and necessary for the functioning of this multiplexer and the same function as the equivalent of a channel director. Regarding the multiplexer limitations of claim 30, both Obana et al (Col. 1, lines 15-45) and Mori et al (Col. 3, lines 50-55) show multiplexer pair transmission.

6. Claims 15-30 contain the trademark/trade name ESCON. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or



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product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves.

Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe communication ports and, accordingly, the identification/description is indefinite.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Salvatore Cangialosi whose telephone number is (703) 305-1837. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Olms, can be reached at (703) 305-4703.

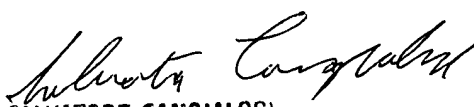
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**or faxed to (703)872-9314 (for Technology Center 2600 only)**

Hand delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, Virginia, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

  
SALVATORE CANGIALOSI  
PRIMARY EXAMINER  
ART UNIT 222